

Status of the Claims

The listing of claims will replace all prior versions, and listings of claims in the application.

1-17 (Cancelled)

18. (previously presented) A relay lens system positioned between a delimiter plane and a pattern generator plane of a lithography system, comprising:

a first lens group comprising three lenses that decrease numerical aperture of a received beam of radiation;

a second lens group having at least one lens that receives the beam of radiation from the first lens group and controls characteristics of the beam of radiation at a pupil plane;

a third lens group consisting of a single lens element made from a single material having a single index of refraction that receives the beam of radiation from the second lens group and controls field characteristics of the beam of radiation at a patterning device plane;

an aperture stop positioned between the first and second lens groups; and

a fold mirror positioned between the second and third lens groups.

19. (previously presented) The system of claim 18, wherein the second lens group consists of two lenses.

20. (previously presented) The system of claim 18, wherein the second lens group consists of three lenses.

21. (previously presented) The system of claim 18, wherein one of the three lenses in the first lens group is a meniscus lens.

22. (previously presented) The system of claim 18, wherein two of the three lenses in the first lens group are biconvex lenses.

23. (previously presented) The system of claim 22, wherein one of the two biconvex lenses has an aspherical surface.

24. (previously presented) The system of claim 18, wherein the at least one lens in the second lens group has at least one aspherical surface.

25. (previously presented) The system of claim 18, wherein the at least one lens in the second lens group has at least one convex surface.

26. (previously presented) The system of claim 18, wherein the single lens in the third lens group comprises two spherical surfaces.

27. (cancelled)

28. (previously presented) The system of claim 18, further comprising:
a light source positioned before the first lens group; and
a pattern generator positioned after the third lens group in the pattern generator plane.

29. (previously presented) The system of claim 18, wherein the characteristics controlled by the second lens group comprise at least one of pupil aberration correction, pupil shape correction, ellipticity correction, and telecentricity correction.

30. (previously presented) The system of claim 18, wherein the field characteristics controlled by the third lens group comprises at least one of creating a desired field size at the pattern generator plane and correcting telecentricity.

31. (currently amended) A relay lens system in an illumination system of a lithography system, comprising:

- a first lens group comprising three lenses;
- a second lens group comprising two or three lenses;
- a third lens group consisting of a single lens made from one material having one index of refraction and having a spherical receiving surface and an aspherical transmitting surface;
- an aperture stop positioned between the first and second lens groups; and
- a fold mirror positioned between the second and third lens groups.